

Guided Missile and Space Vehicle Manufacturing: 2002

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2002 Economic Census

Manufacturing

Industry Series



U S C E N S U S B U R E A U

Helping You Make Informed Decisions

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU



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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)	
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)					
336414, Guided missile and space vehicle manufacturing	2002...	12	19	37 908	2 889 293	14 075	26 441	849 040	6 817 980	5 466 713	12 288 627	'359 918
	2001...	N	N	36 649	2 821 132	12 487	23 701	690 708	8 544 985	5 207 890	11 894 458	271 628
	2000...	N	N	38 295	2 682 083	13 376	24 873	681 127	6 644 577	4 385 514	12 831 945	320 001
	1999...	N	N	48 748	3 517 507	14 936	30 645	817 374	11 739 833	6 165 952	14 963 338	906 188
	1998...	N	N	53 085	3 429 407	17 967	34 739	868 777	9 949 990	6 697 429	16 475 701	700 155
	1997...	15	21	51 398	3 123 246	18 500	35 996	815 692	9 492 504	6 141 862	16 247 363	634 227

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. **Industry Statistics for Selected States: 2002**

[Not applicable for this report]

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
336414, Guided missile and space vehicle manufacturing	
Companies ¹	number.. 12
All establishments ²	number.. 19
Establishments with 1 to 19 employees	number.. 3
Establishments with 20 to 99 employees	number.. 4
Establishments with 100 employees or more	number.. 12
All employees ³	number.. 37 908
Total compensation	\$1,000.. 3 720 162
Annual payroll	\$1,000.. 2 889 293
Total fringe benefits	\$1,000.. 830 869
Production workers, average for year	number.. 14 075
Production workers on March 12	number.. 13 203
Production workers on May 12	number.. 14 409
Production workers on August 12	number.. 14 291
Production workers on November 12	number.. 14 396
Production worker hours	1,000.. 26 441
Production worker wages	\$1,000.. 849 040
Total cost of materials	\$1,000.. 5 466 713
Materials, parts, containers, packaging, etc., used	\$1,000.. 1 995 182
Resales	\$1,000.. D
Purchased fuels	\$1,000.. D
Purchased electricity	\$1,000.. 61 507
Contract work	\$1,000.. 3 395 439
Quantity of electricity purchased for heat and power	1,000 kWh.. 734 329
Quantity of electricity generated less sold for heat and power	1,000 kWh.. -
Total value of shipments	\$1,000.. 12 288 627
Primary products value of shipments	\$1,000.. D
Secondary products value of shipments	\$1,000.. 2 645 446
Total miscellaneous receipts	\$1,000.. D
Value of resales	\$1,000.. D
Contract receipts	\$1,000.. D
Other miscellaneous receipts	\$1,000.. D
Primary products specialization ratio	percent.. 77
Value of primary products shipments made in all industries	\$1,000.. 10 204 176
Value of primary products shipments made in this industry	\$1,000.. D
Value of primary products shipments made in other industries	\$1,000.. D
Coverage ratio	percent.. 87
Value added	\$1,000.. 6 817 980
Total inventories, beginning of year	\$1,000.. 951 136
Finished goods inventories	\$1,000.. 1 301
Work-in-process inventories	\$1,000.. 866 894
Materials and supplies inventories	\$1,000.. 82 941
Total inventories, end of year	\$1,000.. 919 549
Finished goods inventories	\$1,000.. 1 969
Work-in-process inventories	\$1,000.. 862 292
Materials and supplies inventories	\$1,000.. 55 288
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. 4 430 739
Total capital expenditures (new and used)	\$1,000.. '359 918
Buildings and other structures (new and used)	\$1,000.. '73 388
Machinery and equipment (new and used)	\$1,000.. '286 530
Automobiles, trucks, etc., for highway use	\$1,000.. D
Computers and peripheral data processing equipment	\$1,000.. D
All other expenditures for machinery and equipment	\$1,000.. '239 508
Total retirements	\$1,000.. '356 011
Gross value of depreciable assets at end of year	\$1,000.. '4 434 646
Depreciation charges during year	\$1,000.. '192 090
Total rental payments	\$1,000.. 104 496
Buildings and other structures	\$1,000.. 72 397
Machinery and equipment	\$1,000.. 32 099
Total other expenses ⁴	\$1,000.. 701 971
Response coverage ratio ⁵	percent.. 79
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. D
Communications services ⁴	\$1,000.. 4 911
Legal services ⁴	\$1,000.. 2 733
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. D
Advertising and promotional services ⁴	\$1,000.. 1 087
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 18 784
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 166
Management consulting and administrative services ⁴	\$1,000.. D
Taxes and license fees ⁴	\$1,000.. 2 035
All other expenses ⁴	\$1,000.. D

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on 2002 Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
336414, Guided missile and space vehicle manufacturing											
All establishments	—	19	37 908	2 889 293	14 075	26 441	849 040	6 817 980	5 466 713	12 288 627	'359 918
Establishments with—											
1 to 4 employees	9	1	a	D	D	D	D	D	D	D	D
5 to 9 employees	9	1	a	D	D	D	D	D	D	D	D
10 to 19 employees	9	1	a	D	D	D	D	D	D	D	D
20 to 49 employees	—	3	b	D	D	D	D	D	D	D	D
50 to 99 employees	—	1	b	D	D	D	D	D	D	D	D
100 to 249 employees	4	3	f	D	D	D	D	D	D	D	D
250 to 499 employees	—	—	—	—	—	—	—	—	—	—	—
500 to 999 employees	—	2	g	D	D	D	D	D	D	D	D
1,000 to 2,499 employees	—	2	h	D	D	D	D	D	D	D	D
2,500 employees or more	—	5	32 310	2 511 949	11 796	22 027	723 368	5 721 463	4 897 290	10 699 296	333 714
Administrative records ⁴	—	—	—	—	—	—	—	—	—	—	—

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
336414	Guided missile and space vehicle manufacturing	19	37 908	2 889 293	14 075	26 441	849 040	6 817 980	5 466 713	12 288 627	'359 918
3364141	Complete guided missiles	5	10 637	783 674	2 703	5 511	116 324	2 204 849	1 226 192	3 320 346	D
3364143	Research and development on complete guided missiles	2	h	D	D	D	D	D	D	D	D
3364147	Complete space vehicles (excluding propulsion systems)	5	j	D	D	D	D	D	D	D	D
3364149	Research and development on complete space vehicles	3	e	D	D	D	D	D	D	D	D
336414A	All other services on complete space vehicles	2	c	D	D	D	D	D	D	D	D

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. Products Statistics: 2002 and 1997

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
336414	Guided missile and space vehicle manufacturing	2002.. N 1997.. N	X X	X X	10 204 176 12 465 433
3364141	Complete guided missiles	2002.. N 1997.. N	X X	X X	3 654 939 1 689 379
33641411	Complete guided missiles	2002.. N 1997.. N	X X	X X	3 654 939 1 689 379
3364141100	Complete guided missiles	2002.. 5 1997.. 5	X X	X X	3 654 939 1 689 379
3364143	Research and development on complete guided missiles	2002.. N 1997.. N	X X	X X	785 535 2 271 322
33641431	Research and development on complete guided missiles	2002.. N 1997.. N	X X	X X	785 535 2 271 322
3364143100	Research and development on complete guided missiles	2002.. 3 1997.. 5	X X	X X	785 535 2 271 322
3364145	Other services on complete guided missiles	2002.. N 1997.. N	X X	X X	55 445 D
33641451	Other services on complete guided missiles	2002.. N 1997.. N	X X	X X	55 445 D
3364145100	Other services on complete guided missiles	2002.. 4 1997.. 3	X X	X X	55 445 D
3364147	Complete space vehicles (excluding propulsion systems)	2002.. N 1997.. N	X X	X X	4 473 386 D
33641471	Complete space vehicles (excluding propulsion systems) for U.S. Government military customers	2002.. N 1997.. N	X X	X X	D D
3364147101	Complete space vehicles (excluding propulsion systems) for U.S. Government military customers	2002.. 5 1997.. 7	X X	X X	D D
33641472	Complete space vehicles (excluding propulsion systems) for other customers	2002.. N 1997.. N	X X	X X	D D
3364147204	Complete space vehicles (excluding propulsion systems) for other customers	2002.. 6 1997.. 5	X X	X X	D D
3364147Y	Complete space vehicles (excluding propulsion systems), nsk	2002.. N 1997.. N	X X	X X	— —
3364147YVV	Complete space vehicles (excluding propulsion systems), nsk	2002.. N 1997.. N	X X	X X	— —
3364149	Research and development on complete space vehicles	2002.. N 1997.. N	X X	X X	D 729 855
33641491	Research and development on complete space vehicles	2002.. N 1997.. N	X X	X X	D 729 855
3364149101	Research and development on complete space vehicles for U.S. Government military customers	2002.. 3 1997.. 8	X X	X X	D D
3364149104	Research and development on complete space vehicles for other customers	2002.. 4 1997.. 4	X X	X X	D D
3364149Y	Research and development on complete space vehicles, nsk	2002.. N 1997.. N	X X	X X	— —
3364149YVV	Research and development on complete space vehicles, nsk	2002.. N 1997.. N	X X	X X	— —
336414A	All other services on complete space vehicles	2002.. N 1997.. N	X X	X X	D 1 099 673
336414A1	All other services on complete space vehicles	2002.. N 1997.. N	X X	X X	D 1 099 673
336414A101	All other services on complete space vehicles for U.S. Government military customers	2002.. 4 1997.. 8	X X	X X	166 627 579 050
336414A104	All other services on complete space vehicles for other customers	2002.. 4 1997.. 6	X X	X X	D 520 623
336414AY	All other services on complete space vehicles, nsk	2002.. N 1997.. N	X X	X X	32 245 —
336414AYVV	All other services on complete space vehicles, nsk	2002.. N 1997.. N	X X	X X	32 245 —
336414W	Guided missile and space vehicle manufacturing, nsk, total	2002.. N 1997.. N	X X	X X	1 534 9 645
336414WY	Guided missile and space vehicle manufacturing, nsk, total	2002.. N 1997.. N	X X	X X	1 534 9 645
336414WYWW	Guided missile and space vehicle manufacturing, nsk, for nonadministrative-record establishments	2002.. N 1997.. N	X X	X X	1 534 9 645
336414WYWY	Guided missile and space vehicle manufacturing, nsk, for administrative-record establishments	2002.. N 1997.. N	X X	X X	— —

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997**

[Not applicable for this report.]

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
336414	Guided missile and space vehicle manufacturing		
00900001	Total materials .....2002..	X	1 995 182
	.....1997..	X	3 902 367
33641503	Guided missile and space vehicle engines and parts .....2002..	X	D
	.....1997..	X	400 143
33641900	Guided missile and space vehicle airframe parts .....2002..	X	D
	.....1997..	X	D
33422003	Radio communication systems and equipment, including airborne transmitters and receivers (microwave, UHF, VHF, etc.).....2002..	X	D
	.....1997..	X	D
33451103	Navigational systems and equipment (NAVAIDS) .....2002..	X	D
	.....1997..	X	D
33400025	Flight, navigational, airframe, and engine indicators, instruments, and clusters (including sensors, displays, etc.) .....2002..	X	D
	.....1997..	X	D
00190070	Resin matrix composites .....2002..	X	D
	.....1997..	X	N
00190071	Other matrix composites (including ceramic, carbon, metal, etc.).....2002..	X	D
	.....1997..	X	D
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products .....2002..	X	D
	.....1997..	X	D
33211101	Iron and steel forgings .....2002..	X	D
	.....1997..	X	D
33151001	Iron and steel castings (rough and semifinished) .....2002..	X	D
	.....1997..	X	D
33152005	Aluminum and aluminum-base alloy castings (rough and semifinished) .....2002..	X	D
	.....1997..	X	D
00970099	All other materials and components, parts, containers, and supplies .....2002..	X	1 056 204
	.....1997..	X	1 287 341
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	410 236
	.....1997..	X	1 724 970

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.